

ABSTRACT

A micropump formed from a monolithic body and rotatable disc contained within the body. The rotatable disc may include one or more protrusions for drawing a fluid through an inlet and expelling it through an outlet. The protrusions may be formed in a spiral formation, extend as radial vanes from a central point, or have another configuration. The micropump may have a thickness no more than about 12 microns. In other embodiments, the rotatable disk includes one or more gears that utilize positive displacement to pump fluids. The micropump may be used with other microelectromechanical systems and devices.